

Appl. No. 10/710,929  
Amdt. dated September 07, 2005  
Reply to Office action of July 22, 2005

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in this application:

**Listing of Claims:**

1 (currently amended): A dual-band antenna, comprising:

- 5       a substrate having a first surface and a second surface that is on the opposite side of  
          the substrate from the first surface;  
          a transmission line coupled to a ~~OLE\_LINK1~~ feeding point ~~OLE\_LINK1~~ for  
          transmitting RF signals;  
          an emitting unit having a first wire and a second wire that are both disposed on the  
10       first surface, ~~and the first wire and the second wire are crossed intersecting at~~  
          the feeding point, the emitting unit being disposed at a first edge of the  
          substrate; and  
          a ground pad disposed on the second surface of the substrate, wherein the ground  
          pad comprises a base ~~from the base extending from a second edge of the~~  
15       substrate toward the feeding point, the first and second edges being located at  
          opposite sides of the substrate.

2 (original): The dual-band antenna of claim 1 wherein the transmission line is a  
          microstrip.

3 (original): The dual-band antenna of claim 1 wherein the transmission line is a coplanar  
          waveguide.

4 (original): The dual-band antenna of claim 1 wherein the transmission line is a coaxial  
          cable.

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5 (original): The dual-band antenna of claim 1 wherein the base of the ground pad is substantially rectangular.

6 (currently amended): The dual-band antenna of claim 1 wherein the ground pad further  
5 comprising comprises an extension disposed on the second surface and extending from the base toward [[a]] the first edge of the substrate.

7 (original): The dual-band antenna of claim 6 wherein the extension is adjacent to the emitting unit.

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8 (original): The dual-band antenna of claim 6 wherein the extension of the ground pad is substantially rectangular in shape.

9 (currently amended): The dual-band antenna of claim 6 wherein the combination of the  
15 base and the extension forms an "L" shape.

10 (original): The dual-band antenna of claim 1 wherein the first wire decides the low operation frequency of the dual-band antenna.

20 11 (original): The dual-band antenna of claim 1 wherein the second wire is shorter than the first wire and decides the high operation frequency of the dual-band antenna.

12 (original): The dual-band antenna of claim 1 wherein the second wire is extended upward from the feeding point and bent at some angle, being parallel to one side of  
25 the base.

13 (original): The dual-band antenna of claim 1 wherein the first wire is extended upward from the feeding point and bent at some angle, being parallel to one side of the base.

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14 (original): The dual-band antenna of claim 1 wherein the characteristic impedance of the transmission line is 50 Ohms.